

40.410 CRITICAL AQUIFER RECHARGE AREAS (CARAs)

40.410.010 INTRODUCTION

- A. Purpose. This chapter is intended to protect public health, safety, and welfare by preventing degradation, and where possible, enhance the quality of groundwater which will be, or might likely be, used in the future for drinking water or business purposes. This will be accomplished by limiting potential contaminants within designated CARAs. The requirements of this chapter are intended to fulfill obligations of state law under the Growth Management Act, RCW 36.70A; the Public Water Systems Penalties and Compliance RCW 70-119A; the Washington State Wellhead Protection Program and the Public Water Supplies, WAC 246-290; the Dangerous Waste Regulations, WAC 173-303; and the Water Quality Standards for Groundwater of the State of Washington, WAC 173-200.
- B. Classification of critical aquifer recharge areas.
1. Category I is the highest priority critical aquifer recharge area. Category I is the one-year time of travel for Group A water wells, shown on the county's Critical Aquifer Recharge Areas map.
 2. Category II is the primary critical aquifer recharge area. This area consists of the unconsolidated sedimentary aquifer and the Troutdale gravel aquifer, both shown on the county's Critical Aquifer Recharge Areas map.
 3. Parcels that are partly within Category I and Category II shall be subject to the Category I provisions in this chapter.
 4. Parcels that are partly inside Category II, but outside Category I, shall be subject to the Category II provisions in this chapter.
- C. Map. The map entitled Critical Aquifer Recharge Areas Map for Clark County, Washington as signed by the board is adopted and is on file with the County Auditor.

40.410.020 STANDARDS

- A. Exempt activities in Categories I and II.
- The following activities do not require a CARA permit:
1. Existing activities that currently and legally existed on July 31, 1997;
 2. All residential uses other than those having activities covered by Section 40.410.020(B);
 3. Other uses not listed in Sections 40.410.020(B) or (C); and
 4. Activities already permitted and regulated by the state and the Clark County Health Department to incorporate best management practices.
 5. Other Exemptions. The following Underground Storage Tank (UST) systems, including any piping connected thereto, are exempt from the requirements of this chapter:
 - a. Any UST system holding hazardous wastes subject to Subtitle C of the Federal Solid Waste Disposal Act, or a mixture of such hazardous waste and other regulated substances;
 - b. Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under Section 402 or 307(b) of the Clean Water Act;
 - c. Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks;
 - d. Any UST system whose capacity is one-hundred ten (110) gallons or less;
 - e. Any UST system that contains a de minimis concentration of regulated substances;
 - f. Any emergency spill or overflow containment UST system that is expeditiously emptied after use;
 - g. Farm or residential UST systems of one-thousand one-hundred (1,100) gallons or less capacity used for storing motor fuel for noncommercial purposes (i.e., not for resale);
 - h. UST systems used for storing heating oil for consumptive use on the premises where stored; except that such systems which store in excess of one-thousand one-hundred (1,100) gallons are subject to the release reporting requirements of WAC 173-360-372;
 - i. Septic tanks;
 - j. Any pipeline facility (including gathering lines) regulated under:

- (1) The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, et seq.), or
 - (2) The Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, et seq.), or
 - (3) Which is an intrastate pipeline facility regulated under state laws comparable to the provisions of the law referred to in subsection (j)(1) or (2) of this definition;
 - k. Surface impoundments, pits, ponds, or lagoons;
 - l. Stormwater or wastewater collection systems;
 - m. Flow-through process tanks;
 - n. Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations; or
 - o. Storage tanks situated in an underground area (such as a basement, cellar, vault, mineworking drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.
- B. Permitted activities in Categories I and II. The following activities require a CARA permit in both Categories I and II:
- 1. Above- and below-ground storage tanks (tanks and pipes used to contain an accumulation of regulated substances (see Section 40.100.070);
 - 2. Facilities that conduct biological research;
 - 3. Boat repair shops;
 - 4. Chemical research facilities;
 - 5. Dry cleaners;
 - 6. Gasoline service stations;
 - 7. Pipelines;
 - 8. Printing and publishing shops (that use printing liquids);
 - 9. Below-ground transformers and capacitors;
 - 10. Sawmills (producing over ten thousand (10,000) board feet per day);
 - 11. Solid waste handling and processing;
 - 12. Vehicle repair, recycling, and recyclable materials--automotive;
 - 13. Funeral services;
 - 14. Furniture stripping;
 - 15. Motor vehicle service garages (both private and government);
 - 16. Photographic processing;
 - 17. Chemical manufactures and reprocessing;
 - 18. Creosote and asphalt manufacture and treatment;
 - 19. Electroplating activities;
 - 20. Petroleum and petroleum products refining, including reprocessing;
 - 21. Wood products preserving;
 - 22. Golf course;
 - 23. Regulated waste treatment, storage, disposal facilities that handle hazardous material;
 - 24. Medium quantity generators (dangerous, acutely hazardous, and toxic extremely hazardous waste); and
 - 25. Large quantity generators (dangerous, acutely hazardous, and toxic extremely hazardous waste).
- C. Prohibited activities in Category I. The following activities are considered high-impact uses due to the probability and/or potential magnitude of their adverse effects on groundwater and shall be prohibited within Category I:
- 1. Landfills;
 - 2. Class V injection wells;
 - 3. Agricultural drainage wells,
 - 4. Untreated sewage waste disposal wells,
 - 5. Cesspools,
 - 6. Industrial process water and disposal wells, and
 - 7. Radioactive waste disposal;
 - 8. Radioactive disposal sites; and
 - 9. Surface mining operations.

40.410.030 ADMINISTRATION

A. CARA Permit Requirements

1. To receive a CARA permit, the applicant must demonstrate, through a Level 1 site evaluation report, how they will integrate necessary and appropriate best management practices to prevent degradation of groundwater. The applicant must also meet existing local, state, and federal laws and regulations.
2. If an applicant wants to avoid implementation of best management practices, they must submit a Level 2 site evaluation report and develop and implement a monitoring program that:
 - a. Demonstrates how the applicant will prevent degradation to groundwater. The applicant must also meet existing local, state and federal laws and regulation; and
 - b. Includes quarterly reporting to the department. The department will evaluate the monitoring program and may require periodic changes based on the monitoring results, new technology, and/or BMPs.

B. Level 1 site evaluation report/approval criteria.

1. The site evaluation report shall be done by, or under the direction of, and signed by a qualified groundwater professional. The report will identify appropriate BMPs and show how they will prevent degradation of groundwater. Examples of BMPs are described in the guidance documents in Section 40.410.040(A)(4).
2. The report will identify how the applicant will follow the requirements of the Dangerous Waste Regulations, WAC 173-303, in the event hazardous material is released onto the ground or into groundwater.
3. The report will include site specific hydrogeologic information to support a conclusion of no degradation to groundwater. Hydrogeologic information is available from existing U.S. Geological Survey reports (*A Description of Hydrogeologic Units in the Portland Basin, Oregon and Washington, Water-Resources Investigation Report 90-4196*); U.S. Department of Agriculture, Natural Resources Conservation Service (Soil Survey of Clark County, Washington, 1972); Clark County; the Clark County Health Department; and from local purveyors.
4. The report will be reviewed by the department in the same process as the primary development permit. If approved, the applicant will receive a CARA permit allowing the activity on the subject property.
5. The department may waive the requirement for a qualified groundwater professional. This would be done when the site conditions or project mitigations have been, or can be, adequately addressed in the site evaluation report.

C. Level 2 site evaluation report/approval criteria.

1. A qualified groundwater professional will determine whether the proposed activity will have any adverse impacts on groundwater in CARAs. This determination must be based upon the requirements of the Safe Drinking Water Act and the Wellhead Protection Area Program, Public Water Supplies, WAC 246-290; Water Quality Standards for Ground Waters of the State of Washington, WAC 173-200; and Dangerous Waste Regulations, WAC 173-303. By this reference, WACs 173-200, 173-303, and 246-290, as written and hereafter updated, will be part of this chapter. WACs 173-303, 173-200, and 246-290 shall be available for review at the Community Development department, Public Works department, and Health department; and at local water purveyors. Copies shall be available for a fee at Community Development department and the Public Works department. Copies will also be provided to local public libraries.
2. The Level 2 site evaluation report will include the following:
 - a. Identification of the proposed development plan, along with potential impacts (e.g., on-site septic systems and other on-site activities) that may adversely impact groundwater quality underlying or down gradient of the project or project area;
 - b. Site plans or diagrams at an appropriate scale (1:2,400 or 1 inch to 200 feet) showing the location of abandoned and active wells, springs, and surface water bodies within one thousand (1,000) feet of the project or project area; and
 - c. A description of the geologic and hydrologic characteristics of the subject property including the following:

- (1) Lithologic characteristics and stratigraphic relationships,
 - (2) Aquifer characteristics including recharge and discharge areas, depth to and static water-flow patterns, and an estimate of groundwater-flow velocity,
 - (3) Contaminant fate and transport including probable migration pathways and travel time of a potential contaminant release from the site through the unsaturated zone to the aquifer(s) and through the aquifer(s), and how the contaminant(s) may be attenuated within the unsaturated zone and the aquifer(s),
 - (4) Appropriate hydrogeologic cross-sections which depict lithology, stratigraphy, aquifer, units, potential or probable contaminant pathways from a chemical release, and rate of groundwater flow,-
 - (5) Existing groundwater quality, and
 - (6) A proposal for quarterly monitoring of groundwater quality to detect changes and a description of corrective actions that will be taken if monitoring results indicate contaminants from the site have entered the underlying aquifer(s).
3. The report will be reviewed by the department, in consultation with the Clark County Health Department and/or the local water purveyor, in conjunction with the same process as the primary development permit. If approved, the applicant will receive a CARA permit allowing the activity on the subject property.
- D. Appeals. Appeals of county decisions under this chapter may be filed under the provisions of Chapter 40.510.
- E. Penalties. Any person, firm, or corporation who violates, disobeys, omits, neglects, or refuses to comply with any of the provisions of this chapter shall be subject to penalties as defined in RCW 70.119A; WACs 173-200 and 246-290; Title 32 of this code; and other local, state, and federal laws.

40.410.040 INCENTIVES, EDUCATION, AND TECHNICAL ASSISTANCE

- A. Incentives.
1. Best Management Practices (BMPs). Individuals who implement BMPs to safeguard groundwater may not be required to provide additional geologic and hydrologic characteristics of the subject property, pursuant to Sections 40.410.030(B) and (C). Individuals shall implement the Washington Department of Ecology's Stormwater, Water Quality, Hazardous Waste, Wetland, and Solid Waste Programs BMPs; and BMPs from the Departments of Health, Agriculture, Transportation, and State Conservation District Office.
 2. Maintain Open Spaces. An individual may receive a tax reduction for not creating impervious surface within Category I. Open space may allow recharge to replenish the groundwater supply.
 3. Land Exchange. The purpose of land exchange is to locate high-use impacts outside Category I. State agencies and local government may convey, sell, lease, or trade existing public lands in order to obtain public ownership over all or part of a CARA. Such exchanges may occur only upon agreement between the recorded landowner and state and local agencies authorized to exchange the subject land.
 4. The department shall maintain and update a library of best management practices recommended by state and federal agencies. The library shall include, but not be limited to, the following guidance documents (best management practices):
 - a. A Guide for Perspective Well Owners (WDOE, 75-011);
 - b. Guidelines for the Development of Groundwater (WDOE, 86-002);
 - c. Ground Water Resource Protection: A Handbook for Local Planners and Decision Makers (WDOE, 87-003);
 - d. Dry Cleaning Hazardous Waste Do's and Don'ts (WDOE, 91-012c);
 - e. Electroplating (WDOE, 91-0129);
 - f. Guidance for Remediation of Petroleum Contaminated Soils (WDOE, 91-030);
 - g. Protecting Ground Water: A Strategy for Managing Agricultural Pesticides and Nutrients (WDOE, 91-042);
 - h. Empty Pesticide Container Disposal (WDOE, 92-br-008);
 - i. Managing Hazardous Waste for Radiator Shops (WDOE, 92-br-009);

- j. Managing Hazardous Waste for Transmission Shops (WDOE, 93-br-010);
 - k. Managing Hazardous Waste for Service Stations (WDOE, 93-br-013);
 - l. Managing Hazardous Waste for Tire Dealers (WDOE, 93-br-015);
 - m. Surface and Ground Water on Coastal Bluffs: A Manual of Practices for Coastal Property Owners (WDOE, 93-009);
 - n. Tank Owners and Operators Guide to Using Ground Water Monitoring for UST Release Detection (WDOE, 93-012);
 - o. A Guide for Lithographic Printers (WDOE, 94-139);
 - p. A Guide for Photo Processors (WDOE, 94-138);
 - q. A Guide for Screen Printers (WDOE, 94-137);
 - r. Best Management Practices to Prevent Stormwater Pollution at Vehicle Recycling Facilities (WDOE, 94-146);
 - s. Prevention of Stormwater Pollution at Log Yards--Best Management Practices (WDOE, 95-053);
 - t. Vehicle and Equipment Washwater Discharges--Best Management Practices (WDOE, 95-056);
 - u. Best Management Practices for Auto Dealerships--Auto Wastes and Containers (WDOE, 95-405A);
 - v. Best Management Practices for Auto Dealerships--Waste Processes (WDOE, 95-405B);
 - w. Irrigation Best Management Practices to Protect Ground Water and Surface Water Quality (WDOE, 96-013);
 - x. Frequently Asked Questions Concerning Solvent and Cleaner Disposal (WDOE, 96-422);
 - y. Management Requirements for Special Waste (WDOE, 96-1254);
 - z. Drycleaners (WDOE, F-HWTR-93-541); and
 - aa. Selecting Best Management Practices for Stormwater Management (WDOE, WQ-R-93-011).
- B. Education.
- 1. Participation in the County's Business Partners for Clean Water Program. This program provides public recognition to businesses that implement BMPs, such as safely handling and disposing of chemicals in a CARA.
 - 2. Provide Free Information (Pamphlets, Fast Facts) to Building Permit Applicants About How to Protect Groundwater Inside a CARA. Applicants seeking additional information about water quality and resource management issues will be placed on the department's mailing list. In addition, owners will be notified if they are in Category I and will be placed on the department's mailing list to receive groundwater protection newsletters, fact sheets, and pamphlets.
- C. Technical assistance. To assist applicants in locating existing Group A and Group B public water supply wells in CARAs, the Clark County Health Department will provide a list of the physical location of all Group A and Group B public water supply wells in CARAs. A record of these wells will be available for review at the Clark County Health Department. Copies of the current Group A and Group B public water supply wells records may be purchased from the Clark County Health Department or Community Development department.